# MECHANICAL SYSTEMS DATA SHEET: VESSEL

**PLANT ITEM No.**
***24590-PTF-MV-PJV-VSL-00002***

ISSUED BY RPP-WTP PDC

| | | | |
|---|---|---|---|
| Project: | ***RPP-WTP*** | P&ID: | ***24590-PTF-M6-PJV-P0002*** |
| Project No.: | ***24590*** | Process Calculation: | ***Deleted*** |
| Project Site: | ***Hanford*** | Vessel Drawing | ***24590-PTF-MV-PJV-P0001*** |
| Description: | ***PJV Drain Collection Vessel*** | | |

## Reference Data

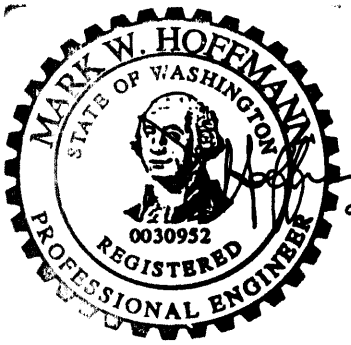
| | |
|---|---|
| Charge Vessels (Plant Item Numbers) | ***None*** |
| Pulsejet Mixers / Agitators (Plant Item Numbers) | ***None*** |
| RFD(s)/Pump(s) (Plant Item Numbers) | ***None*** |

## Design Data

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Quality Level | | ***QL-2*** | | *Fabrication Specs* | ***24590-WTP-3PS-MV00-TP001*** | | |
| Seismic Category | | ***SC-II*** | | *Design Code* | ***ASME Sec VIII, Div-1*** | | |
| Service/Contents | | ***Process Radioactive Cond.*** | | *Code Stamp* | ***YES*** | | |
| Design Specific Gravity | | ***1.00*** | | *NB Registration* | ***YES*** | | |
| Operating Volume | gal | ***7408*** | | Weights (lbs) | Empty | Operating | Test |
| Total Volume | gal | ***8975*** | | Estimated | ***21476*** | ***85775*** | ***96748*** |
| | | | | Actual * | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Inside Diameter | inch | ***120*** | | | Wind Design | ***N/A*** | |
| Length/Height (TL-TL) | inch | ***144*** | | | Snow Design | ***N/A*** | |
| | | Vessel Operating | Vessel Design | Coil/Jacket Design | Seismic Design | ***24590-WTP-3PS-MV00-TP002*** ***24590-WTP-3PS-SS90-T0001*** | |
| Internal Pressure | psig | ***0*** | ***15*** | | Seismic Base Moment * | ft*lb | |
| External Pressure | psig | ***0.22*** | ***FV*** | | Postweld Heat Treat | ***No*** | |
| Temperature | °F | ***113*** | ***200*** | | Corrosion Allowance | Inch | ***0.04*** |
| Min. Design Metal Temp. | °F | ***-20*** | | | Hydrostatic Test Pressure * | Psig | |

Please note that source, special nuclear and byproduct materials, as defined in the Atomic Energy Act of 1954 (AEA), are regulated at the U.S. Department of Energy (DOE) facilities exclusively by DOE acting pursuant to its AEA authority. DOE asserts, that pursuant to the AEA, it has sole and exclusive responsibility and authority to regulate source, special nuclear, and byproduct materials at DOE-owned nuclear facilities. Information contained herein on radionuclides is provided for process description purposes only.




9/15/04

EXPIRES 12/10/04

This bound document contains a total of 2 sheets

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| 0 | 9/15/04 | Issued for Permitting Use | | | | |

| | | |
|---|---|---|
| BECHTEL | **MECHANICAL SYSTEMS DATA SHEET: VESSEL** | **PLANT ITEM No.** ***24590-PTF-MV-PJV-VSL-00002*** |

## Materials of Construction

| Component | Material | Minimum Thickness / Size | Containment |
|---|---|---|---|
| Top Head | ***SA-240-304 (See Note-3)*** | ***See Drawing*** | ***Auxiliary ( See note 5)*** |
| Shell | ***SA-240-304 (See Note-3)*** | ***See Drawing*** | ***Primary ( See note 5)*** |
| Bottom Head | ***SA-240-304 (See Note-3)*** | ***See Drawing*** | ***Primary ( See note 5)*** |
| Support | ***SA-240-304 (See Note-3)*** | * | ***N/A*** |
| Jacket/Coils/Half-Pipe Jacket | ***N/A*** | ***N/A*** | ***N/A*** |
| Internals | ***SA-240-304 (See Note-3)*** | ***See Drawing*** | ***N/A*** |
| Pipe Nozzles | ***SA-312-304 (See Note-3)*** | ***See Drawing*** | ***Primary ( See note 5)*** |
| Forgings/ Bar stock | ***SA-182-304 (See Note-3)*** | ***See Drawing*** | |
| Bolting | ***N/A*** | ***N/A*** | ***N/A*** |

## Miscellaneous Data

| | | | |
|---|---|---|---|
| Orientation | ***Vertical*** | Support Type | ***Skirt*** |
| Insulation Function | ***NA*** | Insulation Material | ***NA*** |
| Insulation Thickness (inch) | ***NA*** | Internal Finish | ***Welds descaled as laid*** |
| | | External Finish | ***Welds descaled as laid*** |

## Remarks

* To be determined by the vendor.

***Note 1: Deleted***

***Note 2: Design life is 40 years***

***Note 3: Material shall have carbon content of 0.030% Max. Dual certified.***

***Note 4: This Vessel is in a Black Cell***

***Note 5: All Welds forming part of the Primary and auxiliary containment including Nozzle attachment welds shall be subjected to 100% Volumetric Examination***